

PINEHURST-WILLOW CREEK
BENTON LAKE

September 1 to December 31, 1948

Personnel--Regular

George E. Mushbach, Superintendent, Moiese, Mont.

Leon C. Snyder, Refuge Manager, Charlo, Montana

Personnel--Temporary

(None)

I General

A. Weather Conditions:

No first hand detailed weather information is available for these refuges during this period. Information on daily precipitation and maximum and minimum temperature readings have always been sent to the refuge manager through the cooperation of Mr. Carrol B. Maynard, County Surveyor of Teton County, residing in Choteau, Montana. Mr. Maynard gets this data from the records of the County Extension Office in Choteau where daily observations are made in cooperation with the United States Weather Bureau. This report has been held up for several days pending the arrival of data for December and at the present time, January 19, this information has still not arrived thus the report is being sent in without it, and blank spaces are being left for the insertion of the missing data. When the information has been received it will be sent in and it is requested that the blank spaces be filled in.

The following table gives comparative data of this period with the same period of a few past years.

Year	Month	Maximum	Minimum	Precip.	Snowfall
1948	September	89	23	.51	
	October	79	20	---	
	November	58	11	.18	T
	December				
	Total				
1947	September	91	27	1.65	7"
	October	79	20	.42	---
	November	70	-10	.43	9.5"
	December	58	-4	.06	1.7"
	Total			2.56	18."
1946	September	88	26	1.96	XXX
	October	77	4	2.01	10"
	November	65	-28	.44	11"
	December	55	-17	.85	20"
	Total			5.26	41"
1945	September	87	23	1.18	10"
	October	85	17	.50	---
	November	65	-2	.10	1.5"
	December	51	-13	.30	13
	Total			2.06	24.5"
1944	September	87	24	.10	2"
	October	79	20	---	---
	November	61	5	.35	8"
	December	57	-15	.38	6"
	Total			.83	16"

B. Water Conditions:

No information is available other than the periodic gauge readings on Pishkun and Willow Creek Refuges. This data is supplied the refuge manager each month through the cooperation of Mr. C. L. Bailey, Project Engineer for the Reclamation Service, Fairfield, Montana. It is known definitely that all water holes on the Benton Lake Refuge were dried up by October first.

<u>Pishkun</u>					
End of	1948	1947	1946	1945	1944
Sept.	4360	4363.4	4363.2	4366.3	4361.5
Oct.	4360	4363.4	4360.6	4368.4	4361.4
Nov.	4360	4363.3	4360.5	4364.9	4361.3
Dec.	4360	4363.3	4360.5	4364.7	4360.0

<u>Willow Creek</u>					
Sept.	4129.5	4128.2	4123.8	4124.7	4132.9
Oct.	4130.1	4128.7	4124.3	4123.6	4133.0
Nov.	4130.4	4129.2	4124.7	4122.7	4132.2
Dec.	4130.7	4129.4	4125.5	4123.0	4133.5

C. Fires:

No fires were reported on any of these refuges during the period.

II WILDLIFE

These areas were visited only once during this period. On October 5 the refuge manager drove to these refuge areas for the primary purpose of measuring hay on Benton Lake Refuge. No waterfowl was noted on this refuge as all refuge water holes were dried up. Enroute back to the Minopipe headquarters the refuge manager passed through both Pishkun and Willow Creek refuges and took a quick look over the water areas. On Pishkun proper about 2000 coots were noted but no ducks or geese. Approximately 200 mallards and baldpates were noted on the numerous small ponds of the Pishkun easement areas. At Willow Creek approximately 3000 ducks and 1500 coots were noted. Also 10 canada geese and 500 snow geese. Ducks consisted of mallards, baldpates, scaups, canvas-backs, redheads and ruddies.

Time was not available to check into food and cover conditions on these refuges during the October visit. There were bumper cereal crops throughout this entire area again this year so there should have been an abundance of food for migrating waterfowl and also for the waterfowl that chose to spend the winter months in that area. From the weather data received for September, October and November the ground was free from snow thus making food easily accessible.

III MAINTENANCE

No maintenance was performed on these areas this period.

IV ECONOMIC USES

1. Grazing:

Grazing at Fishum and Willow Creek refuges is under the direction of the superintendent of the Reclamation Service at Fairfield. Both areas were grazed by cattle and horses throughout the summer and fall months and both areas indicate that they were being grazed to full capacity.

Ten special use grazing permits were again being utilized at Benton Lake refuge again this period. Four of these were on units outside the main fenced area with fees based on an acreage basis and six were within the main portion of the refuge with fees based on an A.U.M. bases. On the main portion of the refuge, grazing during September was concentrated pretty heavy in the western portion of the refuge where there was still enough water in small puddles to supply stock water. During the remainder of the grazing period stock water had to be pumped at the site of the well in the north central part of the refuge and grazing after October 1 was scattered more to the east and central portions. Since no visits were made to the area after the fore part of October no information is available as to how heavily these areas were grazed or how concentrated the grazing was.

Detailed grazing data for 1948 is being submitted on form N. R. 10.

B. Haying: Benton Lake

Detailed data for 1948 is submitted on form N.R. 10. Hay was quite thin on the ground and considerable ground was cut over to get the amount of hay requested by the various permittees.

Completed Jan. 10, 1949

Leon C. Snyder
Leon C. Snyder

Regional Office

Refuge

Benton Lake

Year 1948

Permittee	Permit No.	Unit or Location	Actual Acreage Utilized	Animal Use Months	Tons of Hay Harvested	Period of Use From - To	Rate	Total Income	Remarks
Chas. Hindinger	17615	1-8.	10,420	320		7-15-11-14/48	.50	160.00	
Carl Hindinger	17619	1-8.	10,420	250		7-15-11-14/48	.50	125.00	
R. R. Newman	17616	1-8.	10,420	300		7-20-10-19/48	.50	150.00	
John Hinkle	17618	1-8.	10,420	460		7-15-11-14/48	.50	230.00	
Ude Ewing	17617	1-8.	10,420	160		7-15-11-14/48	.50	80.00	
E. G. Stafford	17614	1-8.	10,420	48		7-15-11-14/48	.50	24.00	
Carl Hindinger	11072	4-8.	147	96		6-1-48/5-31-49	.10a	14.70	office 5-31-50
John Hinkle	17613	2-8.	1100	660		4-1-48/3-31-49	.10c	66.00	
Wm. Chas. Paingier	19325	3-8.	280	168		9-1-48/8-31-49	.10a	28.00	
Wm. Newman	6015	5-8.	280	168		1-1-48/12-31-48	.10a	28.00	
Wm. Newman	17620	4-H(1-8)	75		54.46	7-15-48/3-31-49	1.00	54.46	
Ude Ewing	19322	2-6H(1-8)	120		28.42	" "	1.00	28.42	
R. R. Newman	19323	16-17-18-19-20	125		61.20	" "	1.00	61.20	
John Hinkle	19321	28-29-35H(1-8)	200		112.31	" "	1.00	112.31	
Charles Hindinger		21-22-26-27	200			" "			
William Newman	19324	30-38H(1-8)	20		8.12	" "	1.00	8.12	
		39H(5-8)	20						

Totals:

Acreage grazed 14,227Animal use months 2630Total income Grazing 905.70Acreage cut for hay 540Tons of hay cut 394.51Total income Haying 334.51

334.71

Total 1240.21